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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,875	08/29/2003	Stacey A. Clark	050001-406	9350

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THOMPSON HINE L.L.P.  
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DAYTON, OH 45401-8801

EXAMINER
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BURROWES, LAWRENCE J

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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05/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/651,875

Applicant(s)

CLARK, STACEY A.

Examiner

LAWRENCE J. BURROWES

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/01/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1-4, 6, 7, 9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Krakirian et al (7,120,728) hereafter Krakirian in view of Brocade Communication Systems, Incorporated, "Brocade SAN Design Guide v2.1," hereafter Brocade .

For claims 1-4, 6, 7, 9 and 10, Krakirian disclose a Fibre Channel network comprising: a server (see Figure 6B Box 200, host can be a client or server); and a storage subsystem connected directly to the first and second core switches (see Figure 6B Box 204 and Figure 8A Box 272, the figure 8a makes up the virtualization switch which includes edge switches); whereby a first fabric is formed by the server, the first edge switch, the first core switch and the storage

subsystem (see Figure 6B, SAN Fabric 1) and a second, discrete fabric is formed by the server, the second edge switch, the second core switch and the storage subsystem (see Figure 6B, SAN Fabric 2), whereby the server switches between the first and the second fabrics to provide redundancy (see column 6 lines 11-13, redundant topology).

Krakirian disclose all of the limitations of the claimed invention except a first edge switch connected directly to the server; a first core switch connected to the first edge switch; a second edge switch connected directly to the server; and a second core switch connected to the second edge switch.

Brocade from the same or similar fields of endeavor teaches a first edge switch connected directly to the server (see page 19 Figure 16 and page 49 Figure 43, edge 2 connected to server); a first core switch connected to the first edge switch (see page 49 Figure 43, edge 2 connected to core 1); a second edge switch connected directly to the server (see page 19 Figure 16 and page 49 Figure 43, edge 3 node connected to server); and a second core switch connected to the second edge switch (see page 49 Figure 43, edge 3 connected to core 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement the core-edge topology of Brocade into the virtualization switch of Krakirian by connection the core-edge topology into the fabrics of Krakirian. The motivation to do so would be so to increase and optimize bandwidth for nightly backups of the systems.

**Regarding claim 2**, further comprising a second server (see Krakirian Figure 6B Box 200, the multiple server hosts) connected to the first and second edge switches (The combination of Brocade and Krakirian would have the server hosts connected to the topology); whereby a third, discrete fabric is formed by the second server, the first edge switch, the first core switch and the storage subsystem (The combination of Brocade and Krakirian would form this fabric), and a fourth, discrete fabric is formed by the second server, the second edge switch, the second core switch and the storage subsystem (The combination of Brocade and Krakirian would form this fabric).

**Regarding claim 3**, wherein the third fabric includes inter-switch links (ISL's) interconnecting the first edge switch and the first core switch (see Brocade page 3, definition of ISL).

**Regarding claim 4**, wherein the fourth fabric includes inter-switch links (ISL's) interconnecting the second edge switch and the second core switch (see Brocade page 3, definition of ISL).

**Regarding claim 6**, further comprising an inter-switch link (ISL) interconnecting the first edge switch to the first core switch (see Brocade page 3, definition of ISL).

**Regarding claim 7**, further comprising an inter-switch link (ISL) interconnecting the second edge switch to the second core switch (see Brocade page 3, definition of ISL).

**Regarding claim 9**, further comprising a second storage subsystem connected to the first core switch and the second core switch, whereby the second storage subsystem communicates with the server through the first and the second fabrics (see Krakirian Figure 6B Box 204, the storage arrays connect to both fabrics).

**Regarding claim 10**, further comprising first and second cables interconnecting the second storage subsystem to the first core switch and the second core switch, respectively (see Krakirian Figure 6B Box 204, the storage arrays connect to both fabrics through links).

4. Claims 5, 8 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krakirian, in view of Brocade as applied to claims above, and further in view of Bar-or et al (PGPUB 2004/0139149) hereafter Bar-or.

For claims 5, 8 and 11, Krakirian, in view of Brocade disclose all the limitation of the claimed invention except the server is an application server.

Bar-or from the same or similar fields of endeavor teaches the server is an application server (see Figure 3 Box 15 and Figure 4 box 21, application servers).

Therefore, it could have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement the application server of Bar-or into the combined invention of Krakirian, in view of Brocade by replacing the server host with an application server. The motivation to do so would be to increase scalability so more programs can be added for users.

**Regarding claim 12**, further comprising a second storage subsystem connected to the first core switch and the second core switch, whereby the second storage subsystem communicates with the server through the first and the second fabrics (see Krakirian Figure 6B Box 204, the storage arrays connect to both fabrics).

**Regarding claim 13**, further comprising first and second cables interconnecting the second storage subsystem to the first core switch and the second core switch, respectively (see Krakirian Figure 6B Box 204, the storage arrays connect to both fabrics through links).

For claims 14 and 15, Krakirian, in view of Brocade disclose all the limitations of the claimed invention as applied to claims above, except first and second application servers.

Bar-or from the same or similar fields of endeavor teaches first and second application servers (see Figure 3 Box 15 and Figure 4 Box 21 and 22, application servers).

Therefore, it could have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement the first and second application servers of Bar-or into the combined invention of Krakirian, in view of Brocade by replacing the server hosts with an application server. The motivation to do so would be to increase scalability so more programs can be added for users.



### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liao et al (7206314), Bakke et al (2003/0037275), Maveli et al (2004/0028043), Sim et al (2002/0133491) and Woodring (2002/0191649).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAWRENCE J. BURROWES whose telephone number is (571) 270-1419. The examiner can normally be reached on Monday - Thursday 5:30am - 2pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

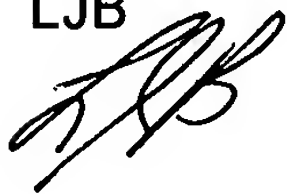


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LJB



WING CHAN  
SUPERVISORY PATENT EXAMINER

5/17/07